AMI StorTrends® iTX Installation and Login

Intel® Storage System SSR212MC2

Recipe ID: 27AMIX46INTC000000-01

WWW.intel.com/go/esaa

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Hardware Components

Quantity	Item	Manufacturer	Model
1	Intel® Storage System SSR212MC2– (Server)	Intel	SSR212MC2
1 (Select one)	Intel® HDD Backplane – SR1500 1U SAS active	Intel	ASR1500SASBP
	Intel® HDD Backplane – SR1500 1U SATA/SAS passive	Intel	ASR1500PASBP
4 GB minimum	Memory	Any supported	Please refer to the Tested Memory List at http://www.intel.com/support/motherboards/server/s5000pal/sb/CS-022919.htm
1 – 12 (250GB minimum)	SAS or SATA 3.5-inch hard drives	Any supported	Please refer to the Server Hard Drive Validation Test Report at http://www.intel.com/support/motherboards/server/sb/CS-025416.htm
1	SAS or SATA 2.5-inch hard drive (to be used as internal boot drive)	Any supported	Please refer to the Server Hard Drive Validation Test Report at http://www.intel.com/support/motherboards/server/sb/CS-025416.htm
1	Gigabit Ethernet Switch	Any Supported	

Table 1 – Intel® Storage System SSR212MC2R Configuration Hardware

Software Used in the Installation

Item	Version	Manufacturer	Comment
StorTrends® iTX Installation CD	2.7.1019	American Megatrends (AMI)	

Table 2 - Software Bill of Materials

Hardware Used in the Installation

Item	Version	Manufacturer	Comment
External CD-ROM Drive with USB connector	N/A	(none recommended)	To be used when loading StorTrends iTX Installation CD

Table 3 -Hardware Bill of Materials

About StorTrends® iTX

StorTrends® iTX 2.7 Dual Dialect Storage Software provides both file and block-based storage functionality in a single, intuitive software stack, enabling businesses to utilize existing Ethernet networks to simplify data management and reduce storage expenditures. Designed for enterprise-level high availability and disaster recovery, it is cost-effective, scalable, and suitable for both novice and advanced users. StorTrends® iTX 2.7 allows

customers to enjoy the advantages of the storage centralization and scalability of IP-based Storage Area Networks, and the ease of use and file-sharing of Network Attached Storage, on a single platform at an attractive price.

For more information on StorTrends® iTX, please visit the StorTrends web site at http://www.StorTrends.com.

Obtaining Software

To request a copy of the 45-day StorTrends iTX Evaluation Kit, or to purchase a copy of StorTrends iTX, please contact the AMI Storage Sales Department toll-free at 1-800-U-BUY-AMI (1-800-828-9264). Alternatively, to place a request for an Evaluation Kit, you may complete the Evaluation Kit Request Form at www.stortrends.com with your complete mailing address and contact information. Please allow 5-7 days for mail delivery of Evaluation Kits, depending on your location.

For interested overseas customers, please contact AMI's US Headquarters at the phone number and email listed above, so that we may connect you with your regional AMI overseas office.

Additional product documentation, including copies of the StorTrends iTX/ManageTrends Set up Guide, User Guide, Product Data Sheets, Whitepapers and much more are available online at www.ami.com.

Finally, please refer to the documentation included in the StorTrends iTX Evaluation Kit CD or contact an AMI Storage Sales Representative at 1-800-U-BUY-AMI for more information and assistance with the recommended evaluation procedures for StorTrends iTX.

Software Environment

StorTrends iTX is based on a Linux kernel and operates through the intuitive ManageTrends® web-based user interface, as well as through a versatile command-line interface (CLI) environment.

The ManageTrends GUI is customizable and features several different "themes", familiar icons and an organizational layout that is amenable to both novice and advanced users alike.

StorTrends® iTX Installation

Overview

Use the *StorTrends iTX Installation CD* from AMI to install the StorTrends iTX software on to your Intel® Storage Server SSR212MC2. An external USB CD-ROM drive (not included) must be attached to one of the USB ports on the Intel® Storage Server SSR212MC2 (located in the rear of the device and front left handle) to do so. Once the StorTrends iTX Installation CD is loaded into the CD-ROM drive and the Intel® Storage Server SSR212MC2 is set to boot from the CD, the *Install Wizard* will automatically begin. Follow the instructions listed during the installation to complete the installation procedure. The StorTrends iTX software installation is a relatively fast process that should not take more than 30 minutes.

Once StorTrends iTX software installation is complete, StorTrends iTX will display a prompt to log in (using the default user name and password). At that time, the initial storage configuration of the Intel® Storage Server SSR212MC2 can begin.

This document outlines the StorTrends iTX software installation and the initial storage configuration process (through the use of either the Quick Start Setup Wizard or the Advanced Setup Wizard) of the Intel® Storage Server SSR212MC2 in greater detail.

STOP!

READ THE *INTEL® STORAGE SERVER SSR212MC2 / SSR212MCR QUICK START USER'S GUIDE* PRIOR TO BEGINNING THE STORTRENDS ITX INSTALLATION. IT IS A PRINTED PIECE OF PAPER THAT SHOULD HAVE BEEN SHIPPED WITH THE INTEL® STORAGE SERVER SSR212MC2.

THIS GUIDE DESCRIBES HOW TO INSTALL THE STORTRENDS ITX SOFTWARE ON THE *INTEL® STORAGE SERVER SSR212MC2* ONLY.

THIS GUIDE DOES NOT DESCRIBE HOW TO INSTALL CPU, MEMORY, HARD DISK DRIVES OR OTHER HARDWARE COMPONENTS. SEE THE *INTEL® STORAGE SERVER SSR212MC2 / SSR212MCR QUICK START USER'S GUIDE* FOR MORE INFORMATION.

AT LEAST ONE (1) NOTEBOOK HARD DISK DRIVE MUST BE INSTALLED IN YOUR INTEL® SERVER SYSTEM SSR212MC2 IN ORDER TO INSTALL STORTRENDS ITX.

STORTRENDS ITX WILL ATTEMPT TO INSTALL ITSELF ONTO THE INTERNAL NOTEBOOK HARD DISK DRIVE (S) IN THE INTEL® STORAGE SERVER. THE INTEL® SERVER SYSTEM SSR212MC2 SUPPORTS UP TO TWO NOTEBOOK HARD DISK DRIVES. STORTRENDS ITX WILL AUTOMATICALLY DETECT WHETHER ONE OR TWO NOTEBOOK HARD DISK DRIVES ARE PHYSICALLY INSTALLED.

IF THERE IS ONLY ONE NOTEBOOK HARD DISK DRIVE INSTALLED, A MESSAGE STATING, "*WARNING!!! DETECTED A SINGLE OS DISK FOR THE STORTRENDS ITX INSTALLATION. ANY OS DISK FAILURE WILL RESULT IN THE SYSTEM BECOMING UNUSABLE. CHOOSE "YES" TO CONTINUE, "NO" TO EXIT FROM THE INSTALLATION*" WILL BE DISPLAYED

IF TWO NOTEBOOK HARD DISK DRIVES ARE INSTALLED, STORTRENDS ITX WILL AUTOMATICALLY DETECT THEM AND WILL MIRROR THE INSTALLATION OF ITSELF OVER BOTH HARD DISK DRIVES. PRIOR TO BEGINNING THE INSTALLATION, THE FOLLOWING MESSAGE, "*DETECTED MULTIPLE DISKS. THE OS WILL BE INSTALLED ON A RAID 1 ARRAY*" WILL BE DISPLAYED

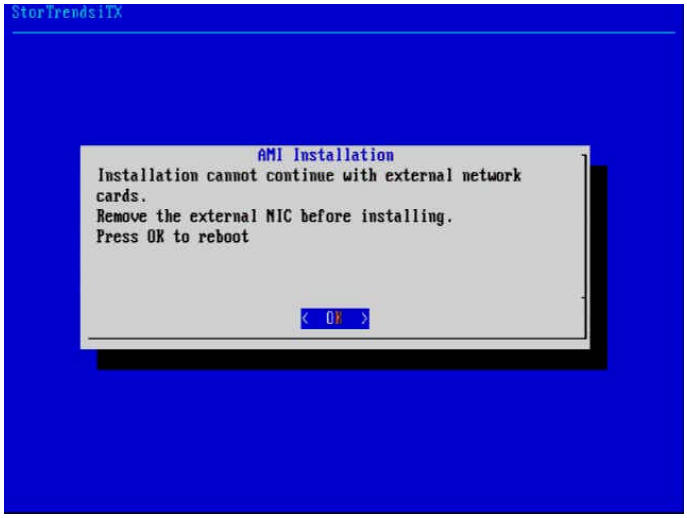
IT IS RECOMMENDED THAT TWO HARD DISK DRIVES BE PRESENT IN THE SYSTEM FOR INSTALLATION OF STORTRENDS ITX.

IN ORDER TO INSTALL STORTRENDS ITX, AN EXTERNAL USB CD-ROM DRIVE MUST BE ATTACHED TO THE SYSTEM. THE APTIO SETUP UTILITY (AMIBIOS) MUST BE CONFIGURED TO BOOT FROM THIS USB CD-ROM DRIVE.

Remove Any PCI NIC Add-on Cards

STOP!

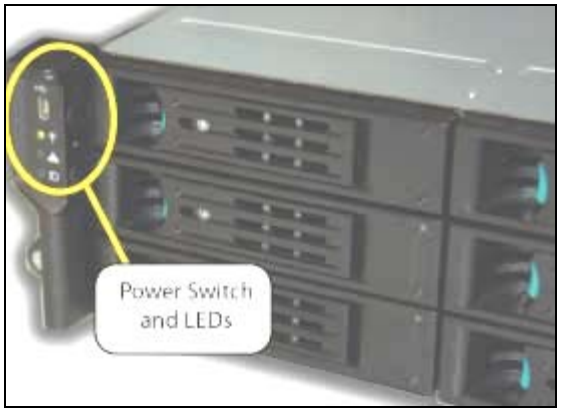
IF ADDITIONAL NIC CARDS ARE PRESENT IN THE SYSTEM, THEY MUST BE REMOVED BEFORE PROCEEDING WITH THE INSTALLATION.

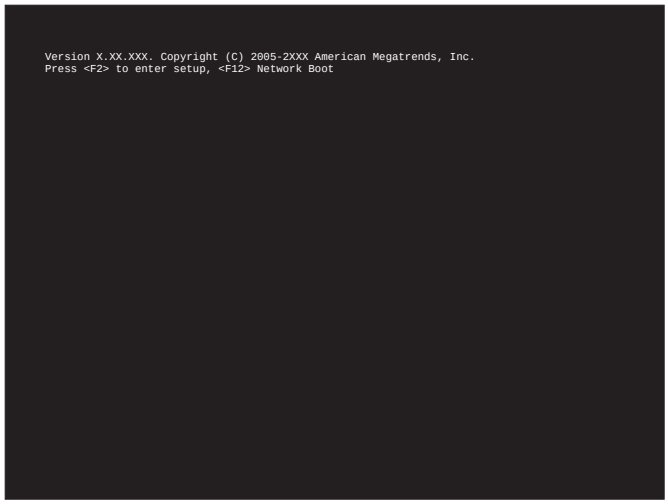
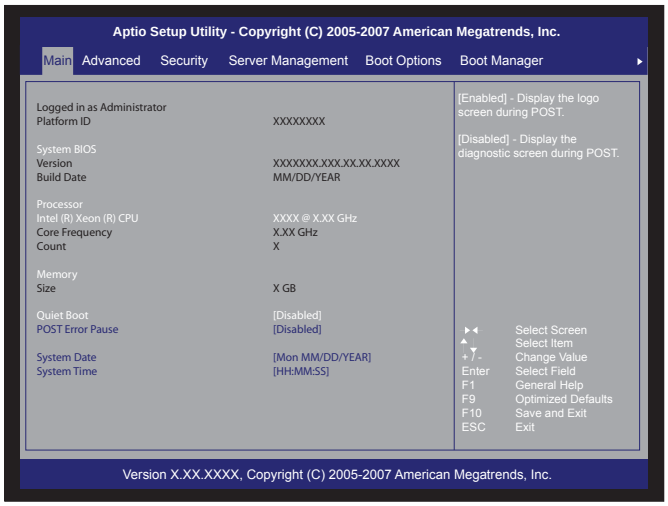

StorTrendsITX
AMI Installation
Installation cannot continue with external network cards.
Remove the external NIC before installing.
Press OK to reboot
< OK >

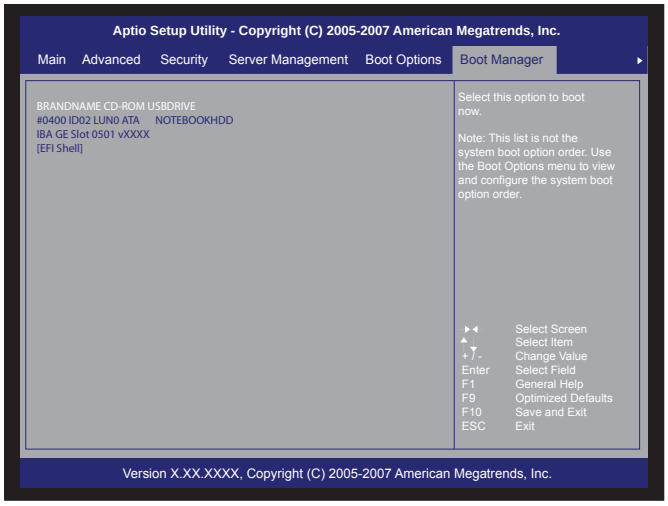
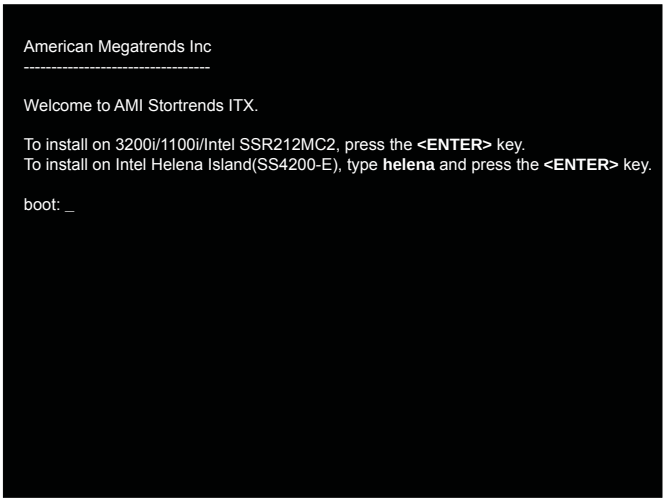
Attach a Keyboard, Monitor and External USB CD-ROM Drive

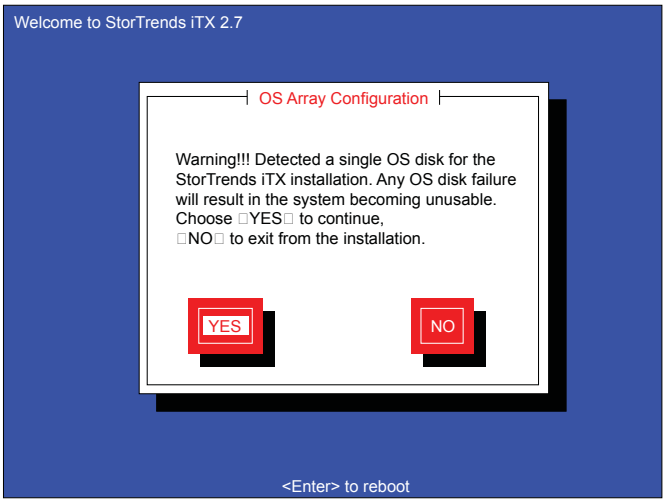
Attach a keyboard, monitor and external USB CD-ROM drive to the Intel® Server System SSR212MC2 (See the Intel® Storage Server SSR212MC2 / SSR212MCR Quick Start User's Guide folded sheet for more information). Power on the Intel® Server System SSR212MC2 and insert the StorTrends iTX Installation CD into the external USB CD-ROM drive.

Installation Procedure

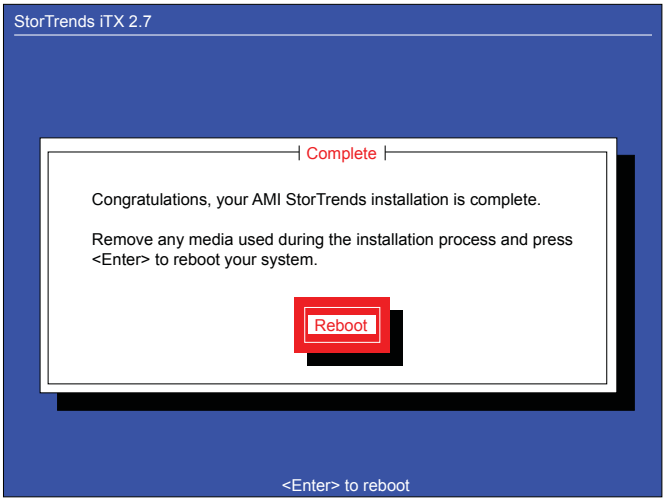
Step	Description
1	

Step	Description
	Once the keyboard, monitor and external USB CD-ROM Drive have been attached, power on the Intel® Server System SSR212MC2.
2	Enter the *Aptio® Setup Utility* (AMIBIOS) to configure the system to boot from the *StorTrends iTX Installation CD*. The Intel® Server System SSR212MC2 takes approximately one and a half minutes to get to the screen that prompts to enter **SETUP**. When prompted with, "**`Press <F2> to enter setup, <F12> Network boot`**," press the <F2> key on the keyboard. 
Step	Description
3	If performed successfully, the *Aptio Setup Utility* screen should display. If not, reset the power on the Intel® Server System SSR212MC2 and start over. 

Step	Description
4	Using the <RIGHT ARROW> key, select *Boot Manager*. Using the <UP ARROW> and <DOWN ARROW> keys, select the USB CD-ROM Drive. Press the <ENTER> key to boot from the *StorTrends iTX Installation CD*.  **Note:** Make sure that the proper menu is selected. A common error is to select the *Boot Options* menu instead of the *Boot Manager* menu.
Step	Description
5	If performed successfully, the *Welcome to AMI StorTrends iTX* screen should display. If not, reset the power on the Intel® Server System SSR212MC2 and start over. Press the <ENTER> key to continue. 
Step	Description

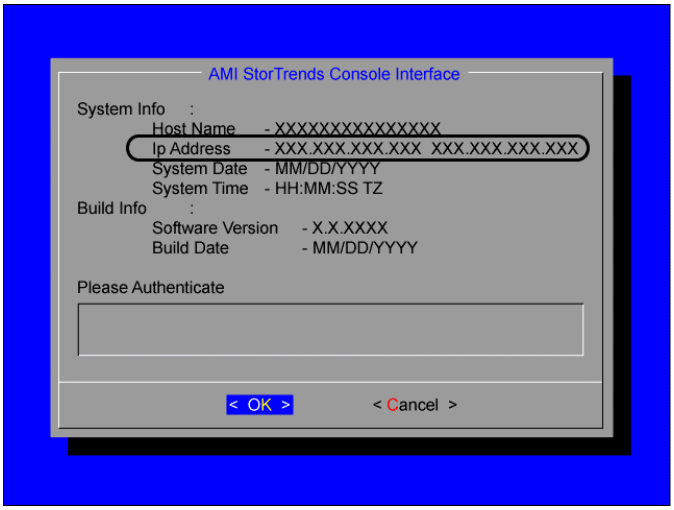
Step	Description
6	The StorTrends iTX installation begins, but before it proceeds, it will prompt with a message depending on how many notebook hard disk drives are installed. The Intel® Server System SSR212MC2 has a dedicated bay for up to two notebook hard disk drives used to hold the operating system. If there is only one notebook hard disk drive installed, the system will prompt with a message stating, "**`Warning!!! Detected a single OS disk for the StorTrends iTX installation. Any OS disk failure will result in the system becoming unusable. Choose "YES" to continue, "NO" to exit from the installation.`**"  If two notebook hard disk drives are installed, StorTrends iTX will automatically detect them and will mirror the installation of itself over both hard disk drives. Prior to beginning the installation, the system will prompt with the following message, "**`Detected multiple disks. The OS will be installed on a RAID 1 array.`**" **Note:** It is recommended that two notebook hard disk drives are present in the

Step	Description
	system for installation of StorTrends iTX. **Note:** In StorTrends iTX 2.7.10.19 and older versions, if StorTrends iTX discovers two notebook hard disk drives, it will not prompt at all.

Step	Description
7	The StorTrends iTX installation takes approximately 30 minutes. Various screens throughout the installation, and at certain times there will be a long period where only a blank screen will appear. However, do not try to do anything; leave the system alone until the *StorTrends iTX Installation CD* ejects, and a message is displayed that the installation is complete. Press the <ENTER> key to reboot. 
8	Congratulations! StorTrends iTX has been successfully installed on your Intel® Server System SSR212MC2. At this point, the external USB CD-ROM drive can be physically disconnected.

Get the IP address

Once the Intel® Server System SSR212MC2 has fully booted into StorTrends iTX, the following screen (shown below) will be displayed. Write down the IP Address listed in the "*Ip Address*" field. If both internal NICs are connected to your network, two IP Addresses will be displayed.



STOP!

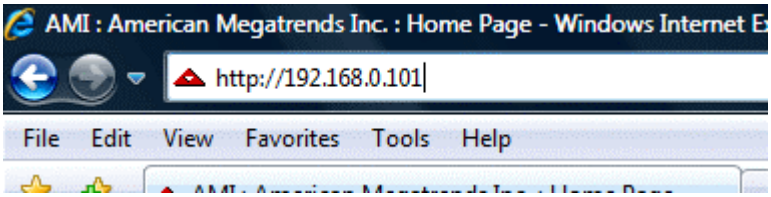
Once again, WRITE DOWN the IP Address listed in the “Ip Address” field. Go to ANOTHER COMPUTER on the same network to continue with the installation.

NOTE:

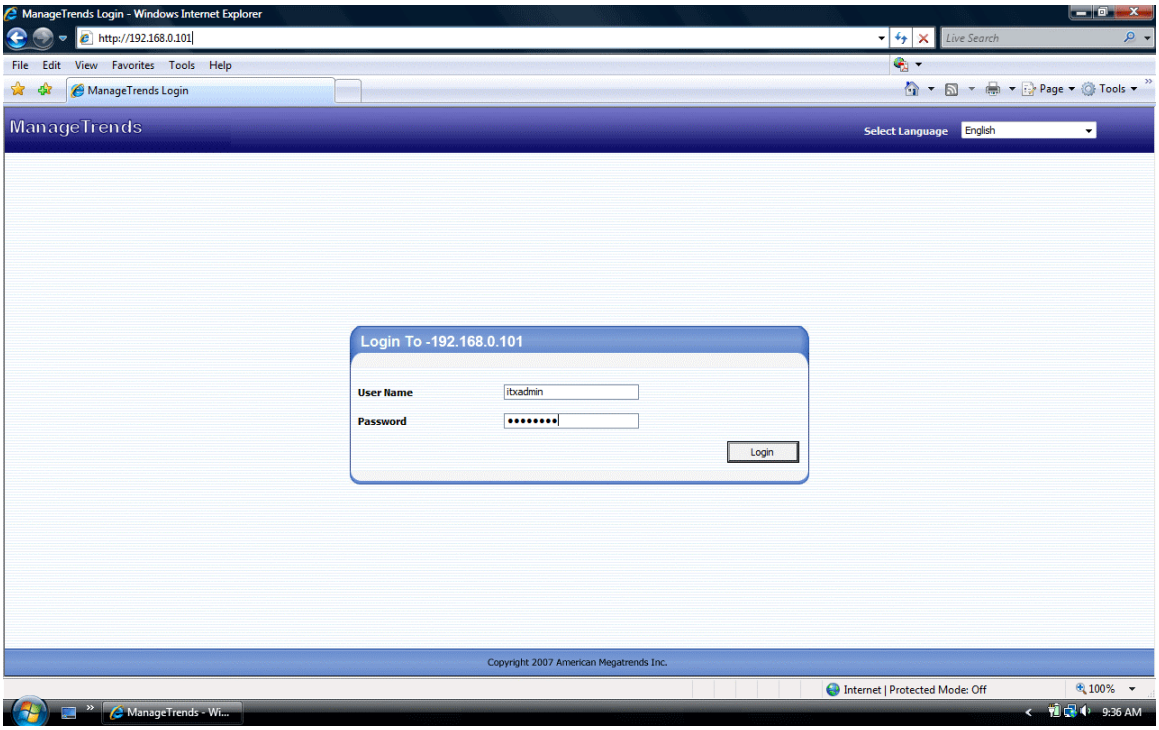
The Intel® Server System SSR212MC2 should now be up and running with StorTrends iTX software. Note that this document may refer to the Intel® Server System SSR212MC2 with the StorTrends iTX software installed on it as the “StorTrends iTX Storage Appliance”. Also, some screens will display a “ManageTrends” instead of “StorTrends iTX”. ManageTrends™ is the graphical user interface (GUI) used to configure and manage the StorTrends iTX Storage Appliance through an Internet browser.

Connecting to the StorTrends® iTX Storage Appliance from another system

Type the IP Address of the StorTrends® iTX Storage Appliance that was recorded in a previous step into an Internet Browser.



Logging on to the StorTrends® iTX Storage Appliance



A prompt to provide a username and password will appear. Enter the following default username and password.

Default user name: **`itxadmin`**

Default password: **`password`**

Note: *Logging into the system using the default itxadmin password gives full administrative powers and rights on the system. It is advised that once you login, you change the password.*

Note: *Both the user name and password are case sensitive.*

Note: *StorTrends® iTX has a built in feature that logs the user out in the event that it detects no activity for 20 minutes and will display a message that states, "Your session has expired."*

Using the Quick Start Setup Wizard

After login, the system will prompt to run the *Storage Wizard*. The *Quick Start Setup Wizard* will get the Intel® Server System SSR212MC2 storage appliance up and running in less than five minutes.

STOP!

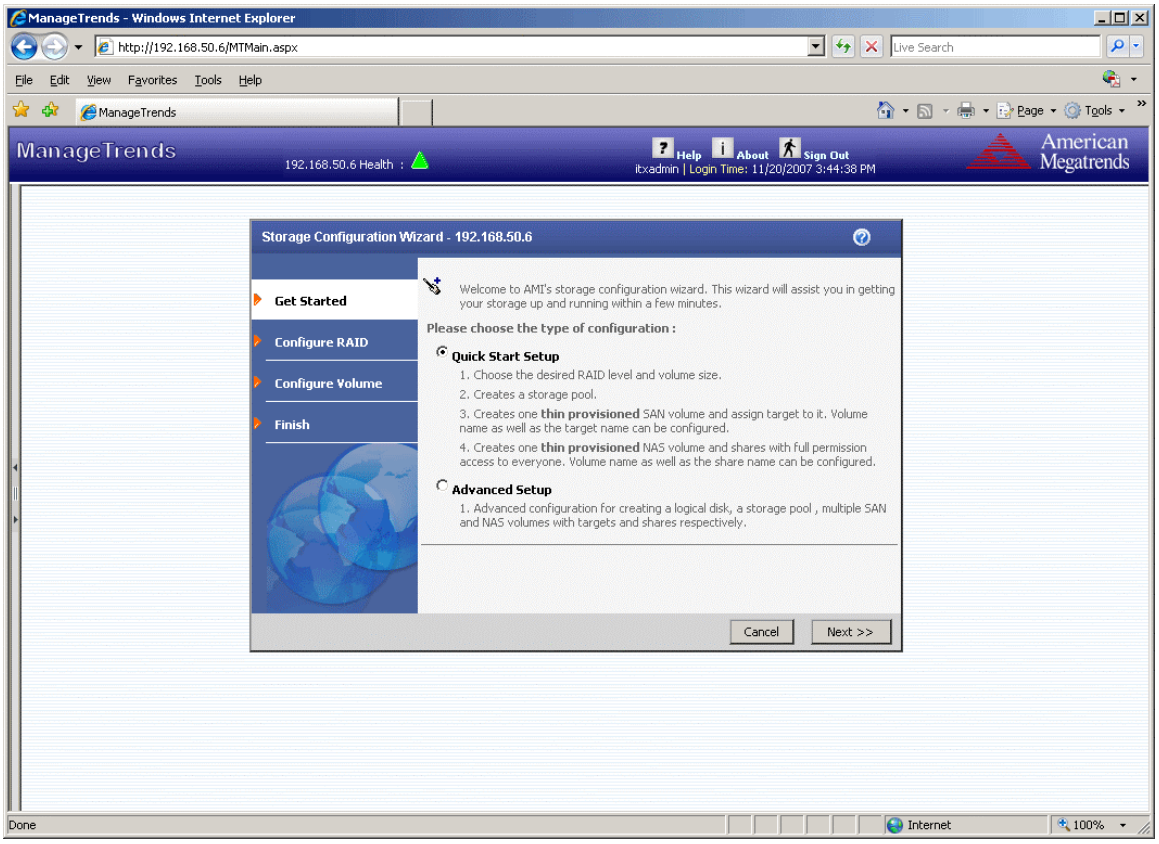
If more detailed control of these settings is desired, enter the *Advanced Setup Wizard* instead of the *Quick Start Setup Wizard*. Jump to the next section for more information on the *Advanced Setup Wizard*.

Use the following instructions as a basis.

Note: *The Quick Start Setup Wizard will select all the physical hard disk drives present in the StorTrends® iTX Storage Appliance to create the RAID array. SAN and NAS volume names are automatically generated. A default NAS Share is also automatically created. In the Quick Start Setup Wizard the SAN and NAS Volumes are configured to use Exact Provisioning. Twenty percent of the physically available hard disk space should be reserved ifsnapshot storage will be utilized on this system.*

Step One: Quick Start Setup Wizard

To configure the storage on the Storage Appliance, the system will prompt to run the Wizard. Click the Quick Start Setup option, and then click Next.

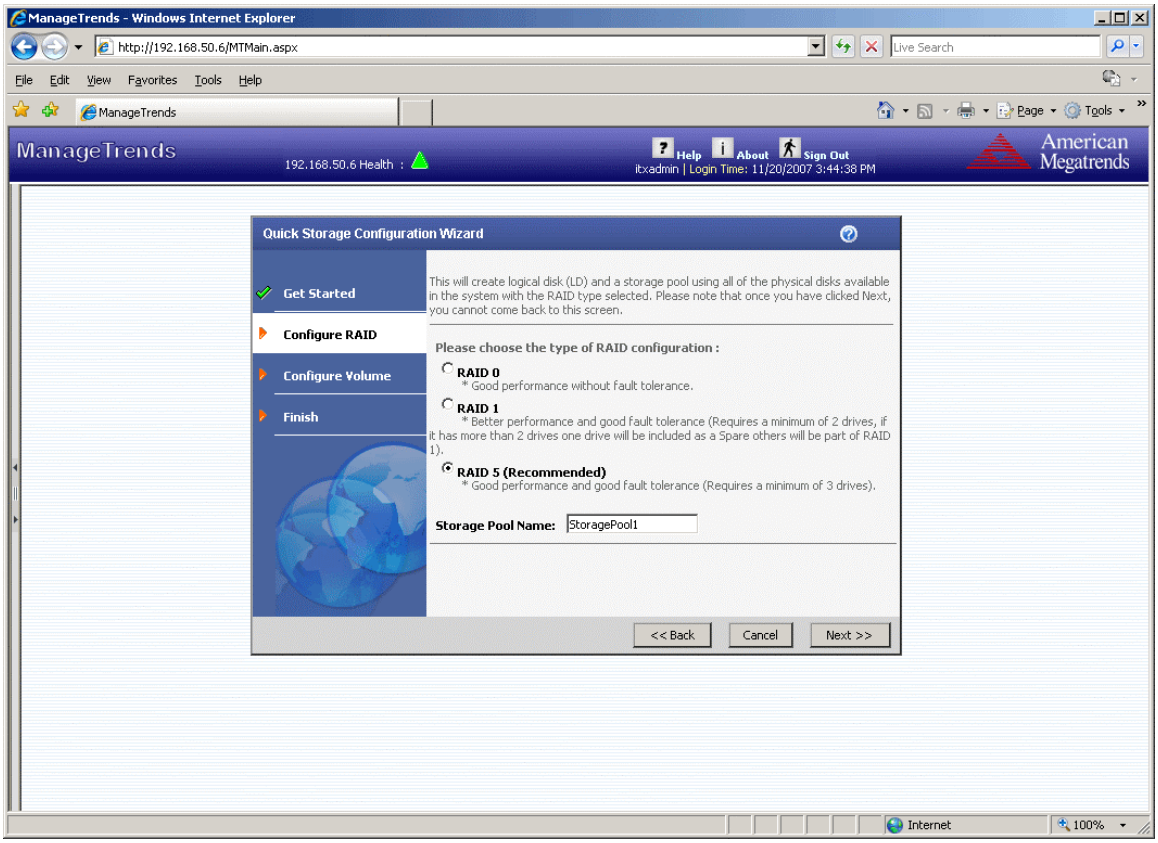

ManageTrends - Windows Internet Explorer
http://192.168.50.6/MTMain.aspx
ManageTrends
192.168.50.6 Health :
Help
About
Sign Out
itxadmin | Login Time: 11/20/2007 3:44:38 PM
American Megatrends
Storage Configuration Wizard - 192.168.50.6
Get Started
Configure RAID
Configure Volume
Finish
Welcome to AMI's storage configuration wizard. This wizard will assist you in getting your storage up and running within a few minutes.
Please choose the type of configuration :
Quick Start Setup
1. Choose the desired RAID level and volume size.
2. Creates a storage pool.
3. Creates one thin provisioned SAN volume and assign target to it. Volume name as well as the target name can be configured.
4. Creates one thin provisioned NAS volume and shares with full permission access to everyone. Volume name as well as the share name can be configured.
Advanced Setup
1. Advanced configuration for creating a logical disk, a storage pool , multiple SAN and NAS volumes with targets and shares respectively.
Cancel
Next >>
Done
Internet
100%

Step Two: RAID Level

Once the Quick Start Setup Wizard begins, the following options for RAID level selection appear:

- RAID 0
- RAID 1
- RAID 5

This step will create a Logical Disk and a storage pool from all the physical hard disk drives available in the system/controller using the selected RAID type. Once Next has been selected, this step can not be repeated / overridden.


ManageTrends - Windows Internet Explorer
http://192.168.50.6/MTMain.aspx
Live Search
File Edit View Favorites Tools Help
ManageTrends
Page Tools
ManageTrends
192.168.50.6 Health :
Help About Sign Out
itxadmin | Login Time: 11/20/2007 3:44:38 PM
American Megatrends
Quick Storage Configuration Wizard
Get Started
Configure RAID
Configure Volume
Finish
This will create logical disk (LD) and a storage pool using all of the physical disks available in the system with the RAID type selected. Please note that once you have clicked Next, you cannot come back to this screen.
Please choose the type of RAID configuration :
RAID 0
* Good performance without fault tolerance.
RAID 1
* Better performance and good fault tolerance (Requires a minimum of 2 drives, if it has more than 2 drives one drive will be included as a Spare others will be part of RAID 1).
RAID 5 (Recommended)
* Good performance and good fault tolerance (Requires a minimum of 3 drives).
Storage Pool Name:
StoragePool1
<< Back
Cancel
Next >>
Internet
100%

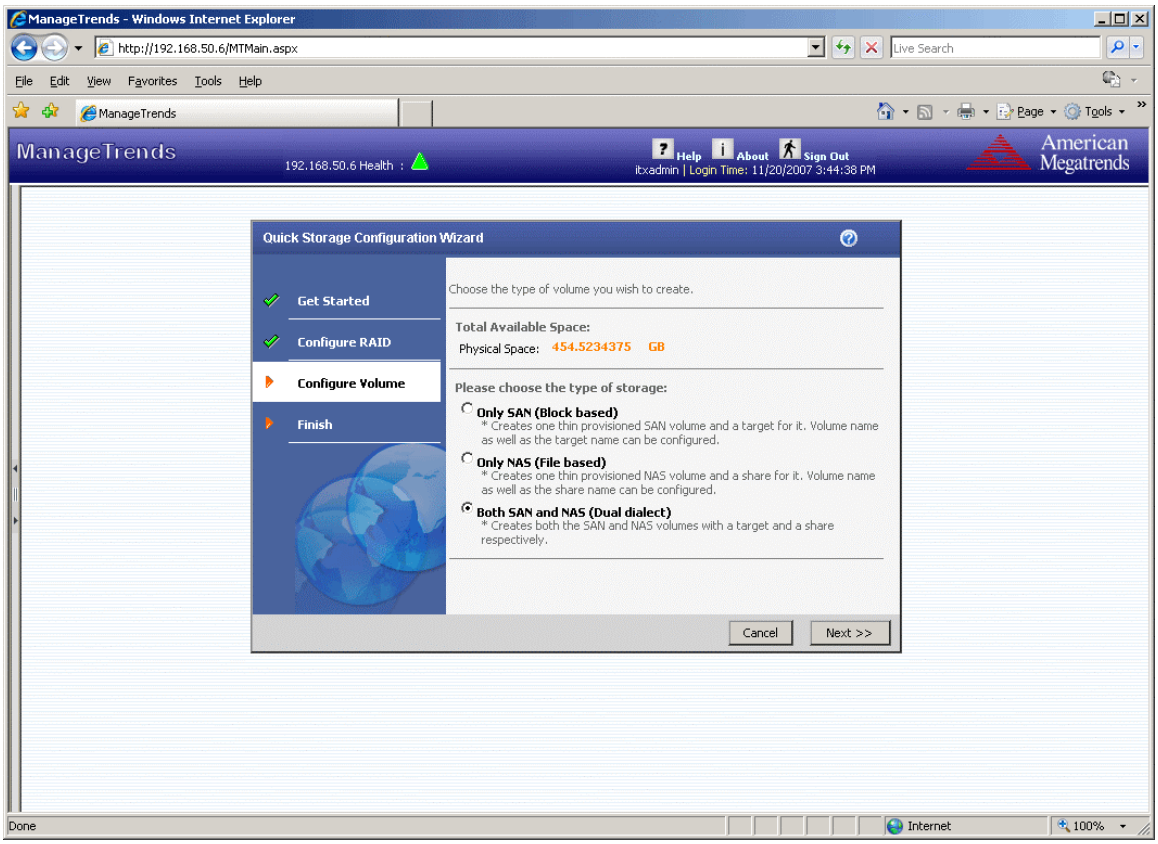
The system will prompt the user to wait while it configures the box. Do not close the window or click anywhere else during this configuration step.

Step Three: SAN or NAS or Both

Once an array has been created in the box, select how the Storage Appliance will be utilized, according to the following options:

- Only SAN
- Only NAS
- Both SAN and NAS

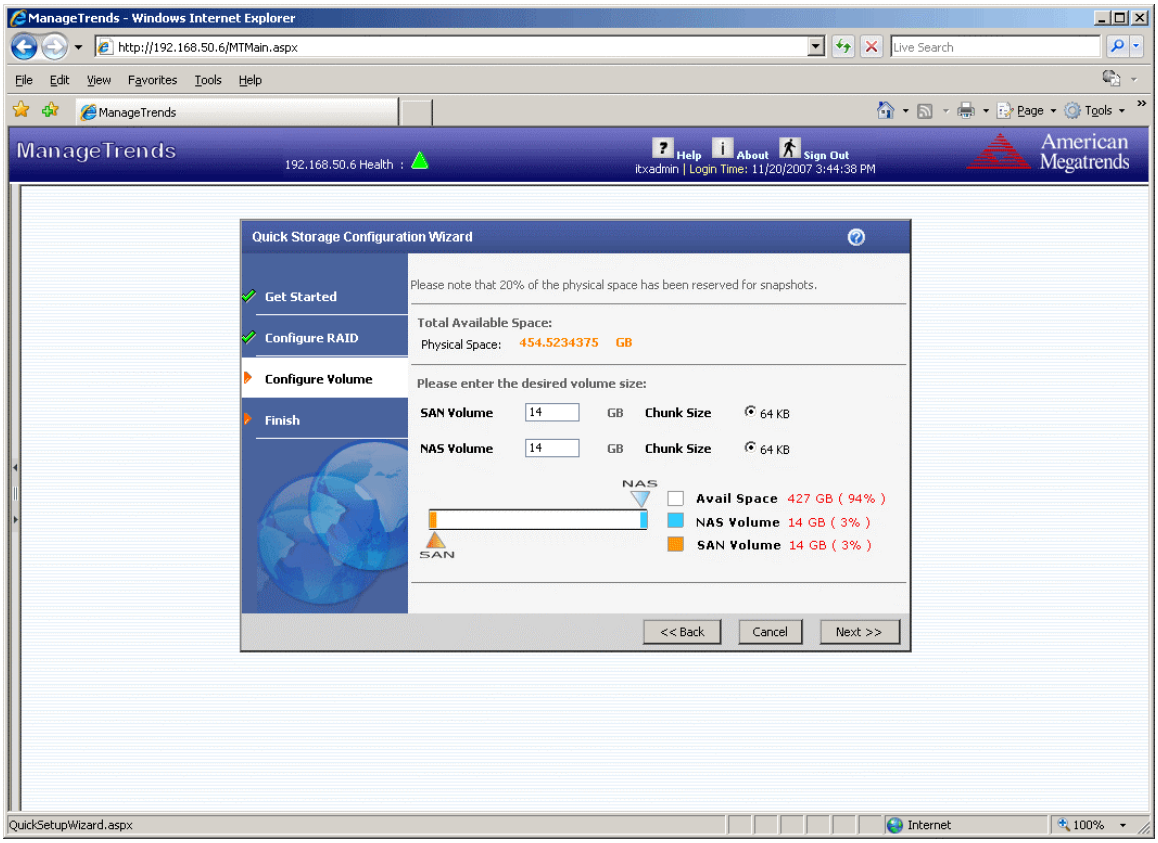
If the Storage Appliance is to be used for block-level storage only, select *Only SAN*. If the Storage Appliance is to be used for file-level storage only, select *Only NAS*. Select *Both SAN and NAS* to enable the Storage Appliance to support both block-level and file-level storage.


ManageTrends - Windows Internet Explorer
http://192.168.50.6/MTMain.aspx
ManageTrends
192.168.50.6 Health :
Help
About
Sign Out
itxadmin | Login Time: 11/20/2007 3:44:38 PM
American Megatrends
Quick Storage Configuration Wizard
Get Started
Configure RAID
Configure Volume
Finish
Choose the type of volume you wish to create.
Total Available Space:
Physical Space: 454.5234375 GB
Please choose the type of storage:
Only SAN (Block based)
* Creates one thin provisioned SAN volume and a target for it. Volume name as well as the target name can be configured.
Only NAS (File based)
* Creates one thin provisioned NAS volume and a share for it. Volume name as well as the share name can be configured.
Both SAN and NAS (Dual dialect)
* Creates both the SAN and NAS volumes with a target and a share respectively.
Cancel
Next >>
Done
Internet
100%

Step Four: Allocating Space

Enter the size of the desired Volume. The default volumes cannot exceed the available physical space, due to the fact that they are both using Exact Provisioning by default. Click *Next*.

Note: *Use the slider bar to adjust the size of each Volume type. If Only NAS or Only SAN have been selected, then only the slider for that type of Volume will be available.*

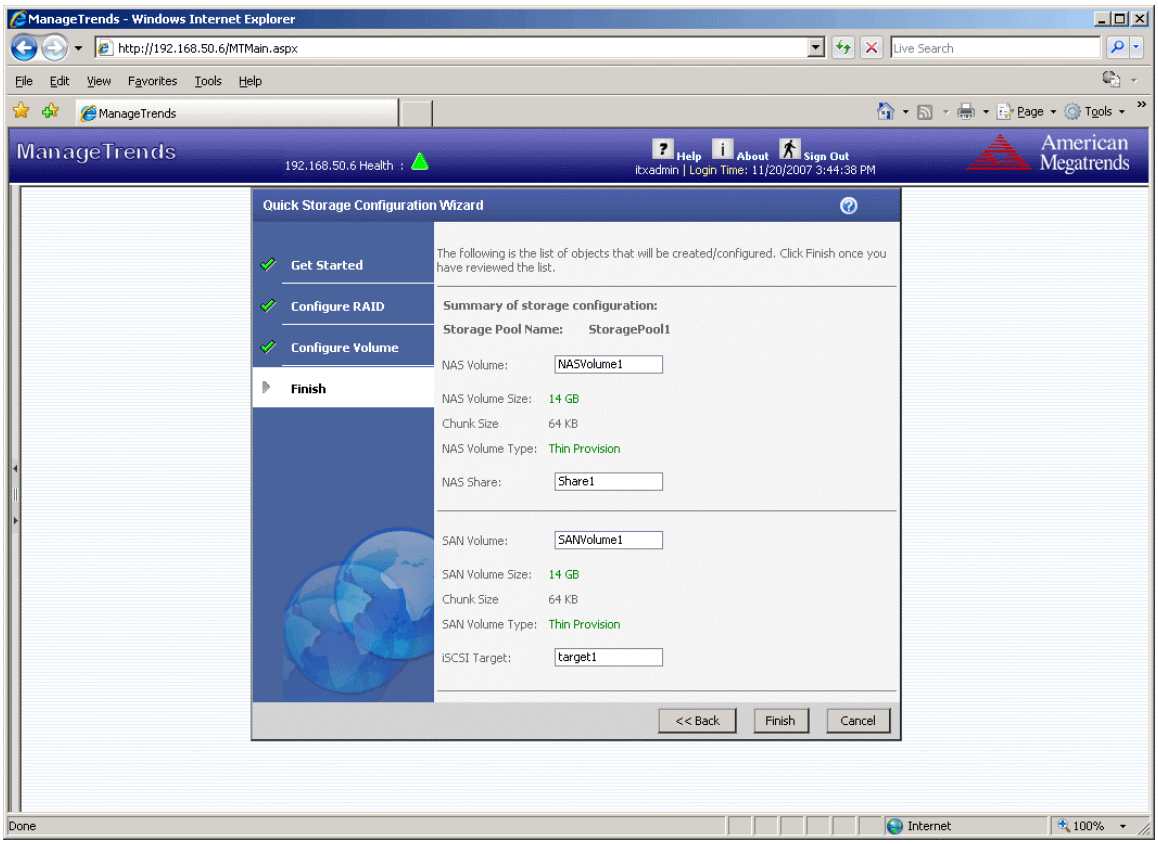


Step Five: Summary View

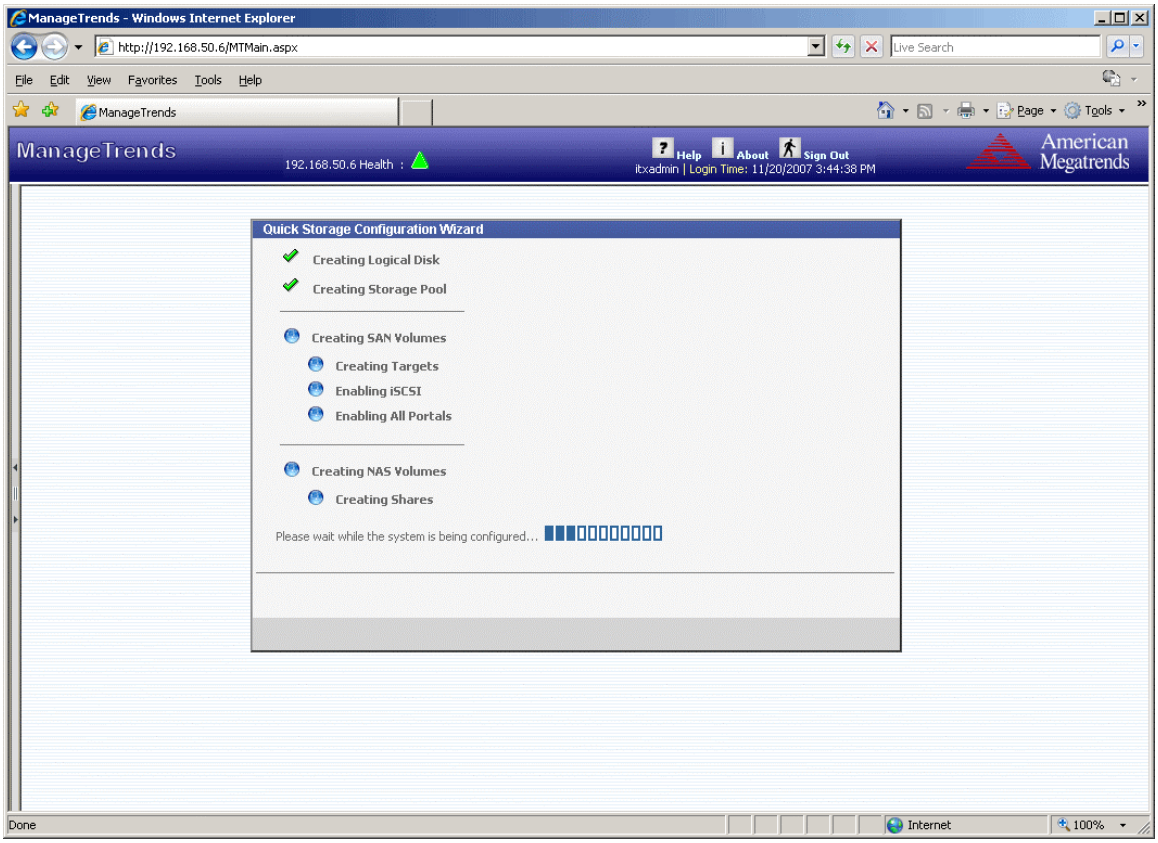
A summary will appear; click the *Finish* button after reviewing that this information is correct. The Storage Appliance will be automatically configured based on the values that have been entered.

Note: *The default names for volumes and containers can be modified at this point. Also note that uppercase characters are not allowed in target names.*

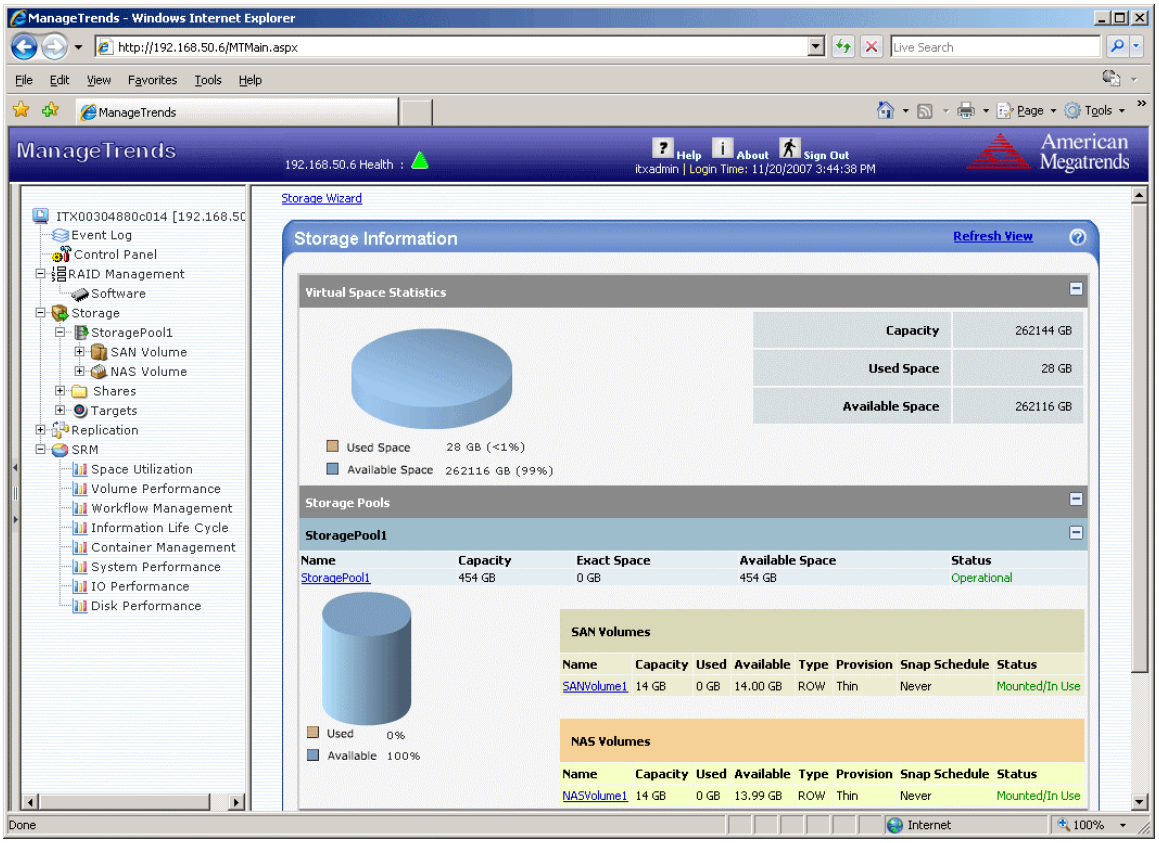
Additionally, if the snap-assisted replication feature will be used, uppercase characters should be avoided in both the container and volume names. Because of this restriction, the default names must be modified at this time.



Do not close the window or click anywhere else until the operation completes.


ManageTrends - Windows Internet Explorer
http://192.168.50.6/MTMain.aspx
Live Search
File Edit View Favorites Tools Help
ManageTrends
Page Tools
ManageTrends
192.168.50.6 Health :
Help About Sign Out
itxadmin | Login Time: 11/20/2007 3:44:38 PM
American Megatrends
Quick Storage Configuration Wizard
Creating Logical Disk
Creating Storage Pool
Creating SAN Volumes
Creating Targets
Enabling iSCSI
Enabling All Portals
Creating NAS Volumes
Creating Shares
Please wait while the system is being configured...
Done
Internet
100%

Step Six: All Done No Errors



STOP!

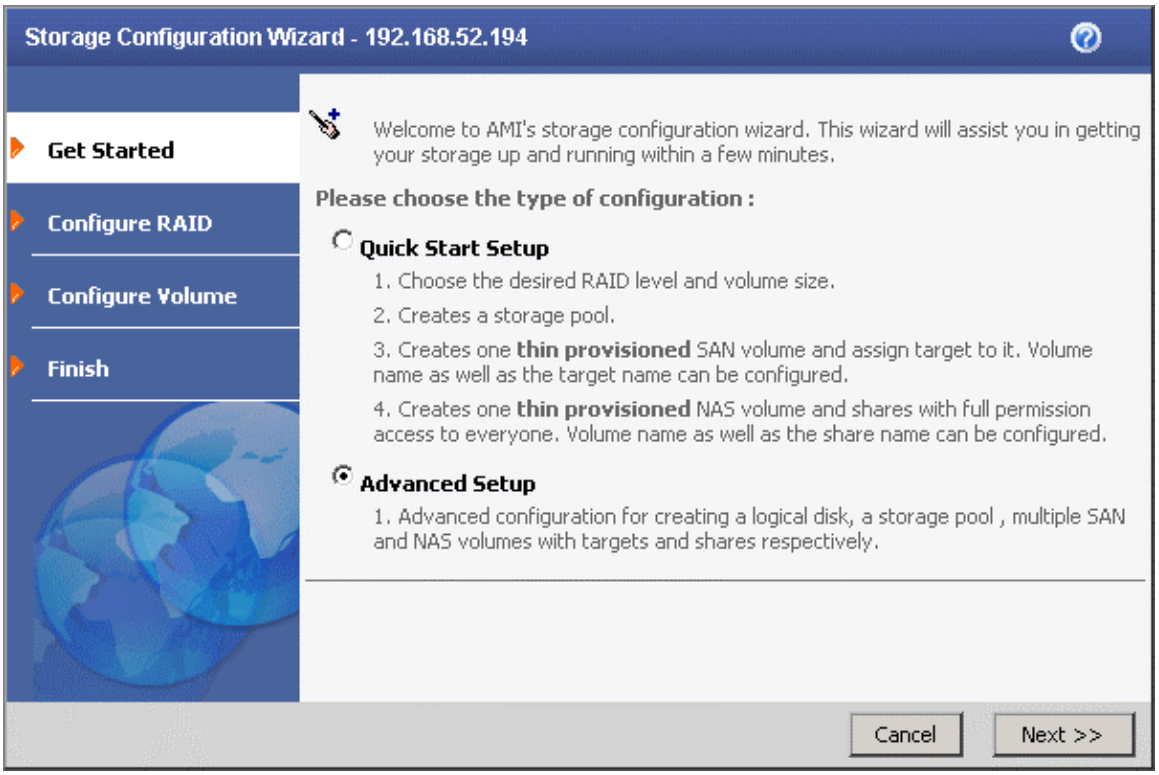
THE STORAGE APPLIANCE SHOULD NOW BE UP AND RUNNING. ALL THE REMAINING SECTIONS OF THIS DOCUMENT CAN BE SKIPPED.

Using the Advanced Setup Wizard

The *Advanced Setup Wizard* allows users increased control and options during the storage configuration process.

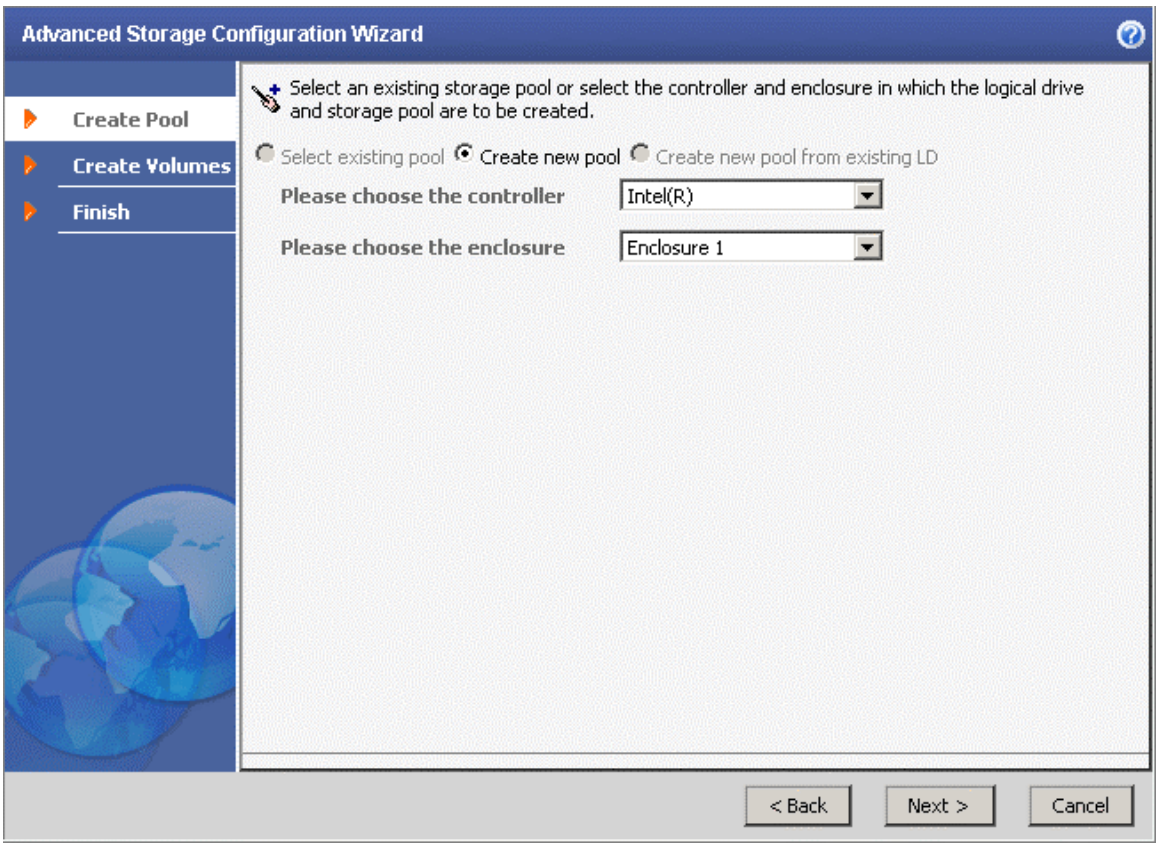
Step One: Advanced Wizard

To configure the Storage Appliance, the system will prompt to run the *Wizard*. Click the *Advanced* option, and then click *Next*.


Storage Configuration Wizard - 192.168.52.194
Get Started
Configure RAID
Configure Volume
Finish
Welcome to AMI's storage configuration wizard. This wizard will assist you in getting your storage up and running within a few minutes.
Please choose the type of configuration :
Quick Start Setup
1. Choose the desired RAID level and volume size.
2. Creates a storage pool.
3. Creates one thin provisioned SAN volume and assign target to it. Volume name as well as the target name can be configured.
4. Creates one thin provisioned NAS volume and shares with full permission access to everyone. Volume name as well as the share name can be configured.
Advanced Setup
1. Advanced configuration for creating a logical disk, a storage pool , multiple SAN and NAS volumes with targets and shares respectively.
Cancel
Next >>

Step Two: Create a New Storage Pool

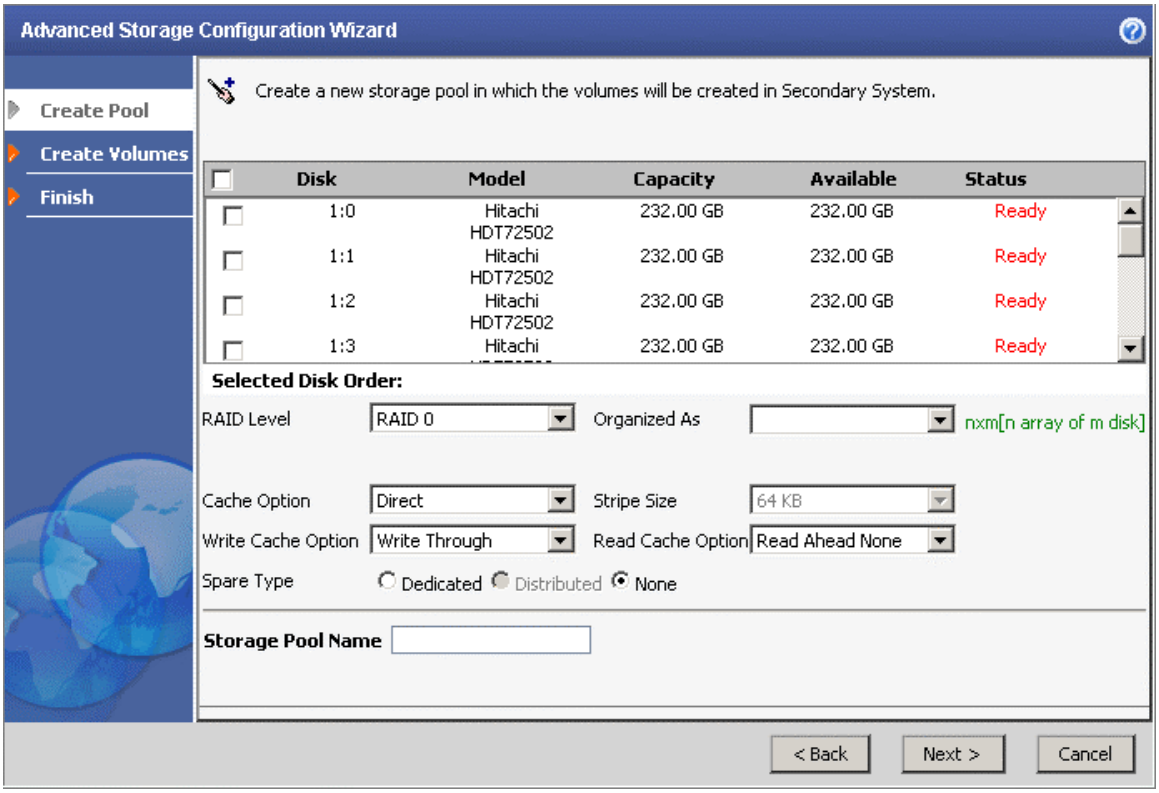
Select Create new storage pool and then click Next.


Advanced Storage Configuration Wizard
Create Pool
Create Volumes
Finish
Select an existing storage pool or select the controller and enclosure in which the logical drive and storage pool are to be created.
Select existing pool
Create new pool
Create new pool from existing LD
Please choose the controller
Intel(R)
Please choose the enclosure
Enclosure 1
< Back
Next >
Cancel

Step Three: Select Pool

Select the Disks

Select the *Disks* that designated for use in the *Storage Pool*.



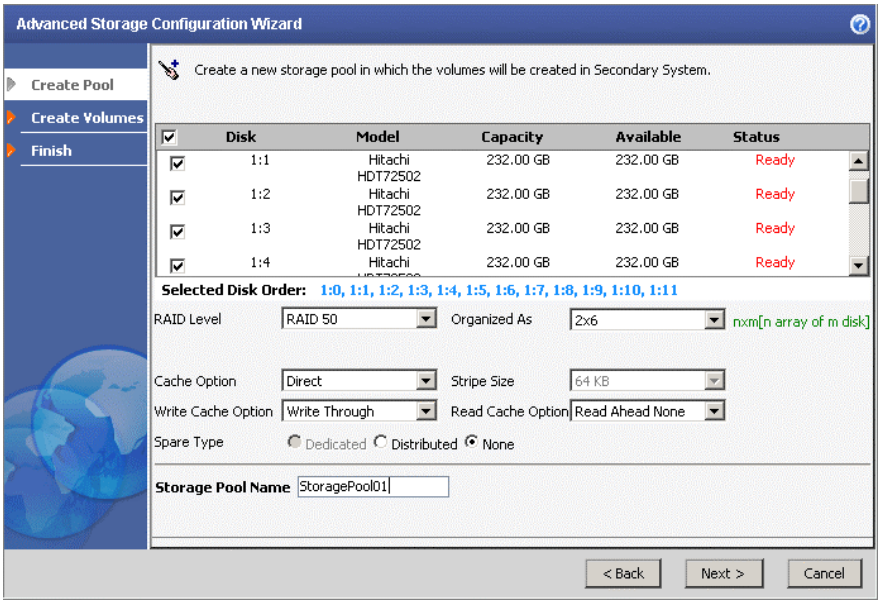
Set the RAID Levels

Select the *RAID Level*, Capacity, Cache Option type, Stripe Size and Spare type (if applicable).

NOTE:

Not all RAID levels mentioned in this document are supported by the Intel® Server System SSR212MC2. See the *Intel® RAID Software User's Guide* that shipped with the Intel® Server System SSR212MC2 for more information on the supported hardware RAID levels.

The Intel® Server System SSR212MC2 should have a RAID controller that supports RAID 0, RAID 1, RAID 5, RAID 10 and RAID 50. Depending on the configuration of your Intel® Server System SSR212MC2, its RAID controller MAY also support RAID 6 and RAID 60.



Type in the Storage Pool's Name

Insert a Storage Pool Name in the field provided, according to the guidelines listed in the notes below.

Note: *The Storage Pool Name must be alphanumeric, not have any spaces and be between one and 63 characters in length.*

Note: *If the snap-assisted replication feature will be utilized, uppercase characters should be avoided in container and volume names as well.*

Click the *Next* button to continue.

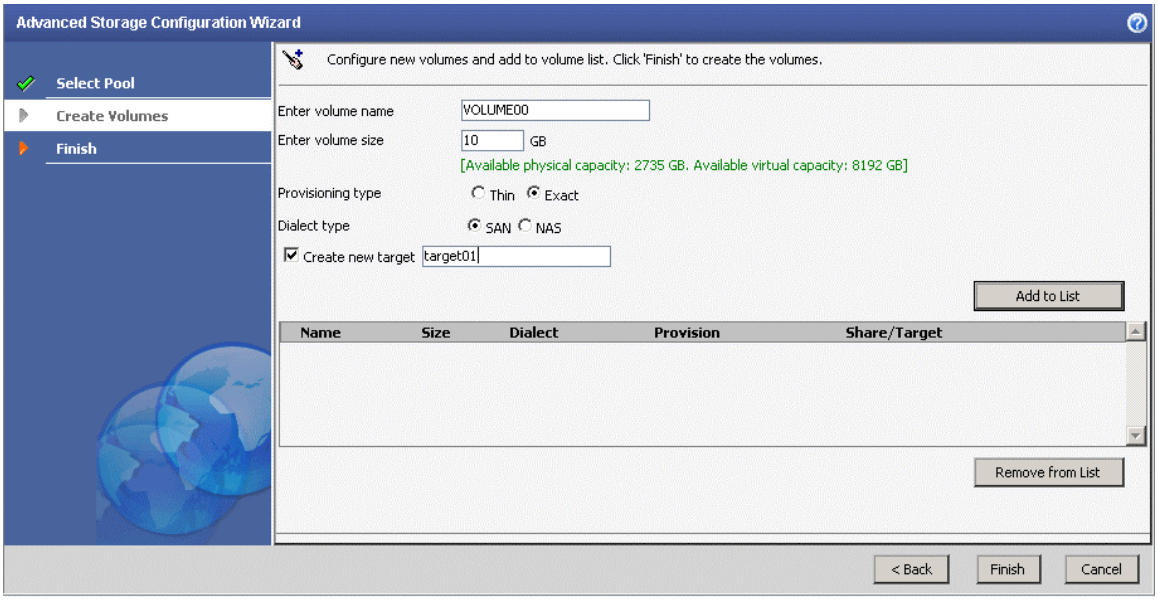
The system will prompt the user to wait while it configures the box. Do not close the window or click anywhere else.

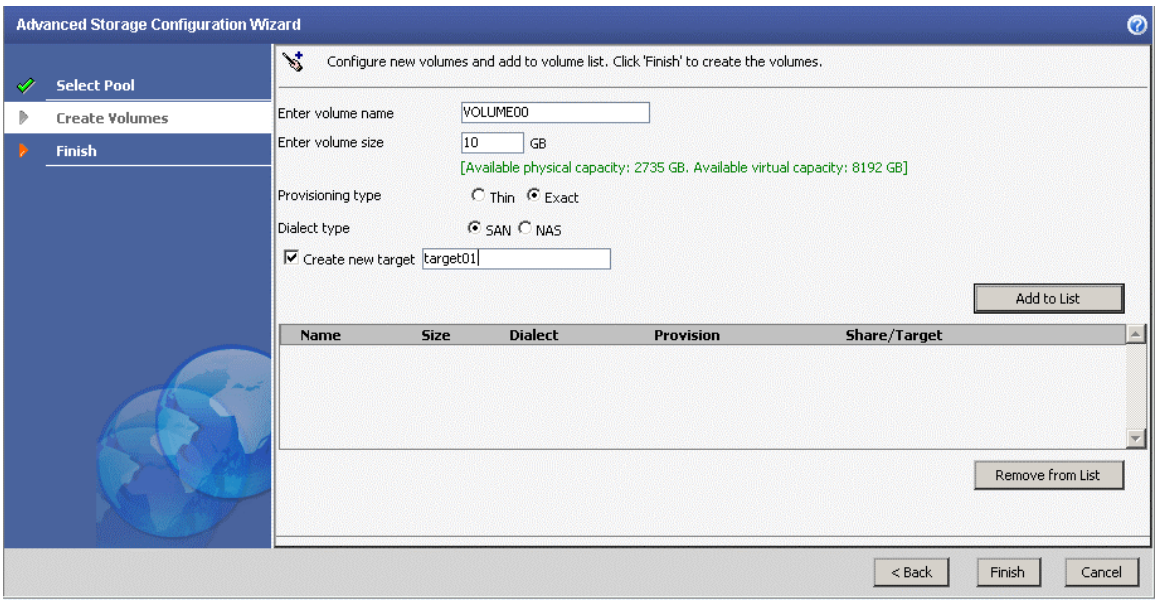
Step Four: Configure SAN Volume

STOP!

This section provides instruction for configuring a SAN Volume and a SAN Target on the Storage Appliance. If this storage appliance has been configured as a NAS Only unit, SKIP THIS STEP and go to *Step Five: Configure NAS Volume*.

The next page provides instructions on creating a SAN Volume and Target.





Enter Volume Name

In the *Enter Volume Name* field, enter a name for the *SAN Volume*. The *SAN Volume Name* must be alphanumeric, not have any spaces and be between one and 63 characters in length.

Enter Volume Size

In the *Enter Volume Size* field, enter the size desired for the *SAN Volume*. The field is measured in Gigabytes *(GB)*.

Select Thin or Exact Provisioning

Select the desired type of provisioning.

If *Thin Provisioning* is selected, the volume can be assigned a size greater than the actual physical size of the storage device. For example, if the storage device has an actual physical size of 500 GB, the user can assign a size of up to 256 TB per box. Based on the consumption of the storage device's physical capacity, more physical drive capacity can be added later as desired.

If *Exact Provisioning* is selected, the volume size cannot exceed the actual physical space available in the storage device.

Note: *It is recommended to leave 20% of the physical space free for snapshots.*

Select SAN as the Dialect Type

Select *SAN* as the *Dialect Type*.

Create Target and Target Name

Place a check next to the *Create New Target* field. Enter a name for the *Target*. The *Target Name* must be alphanumeric, not have any spaces and be between one and 63 characters in length. Uppercase characters are not allowed in target names.

Note: *If snap-assisted replication feature will be used, uppercase characters should be avoided in both the Container and Volume names as well.*

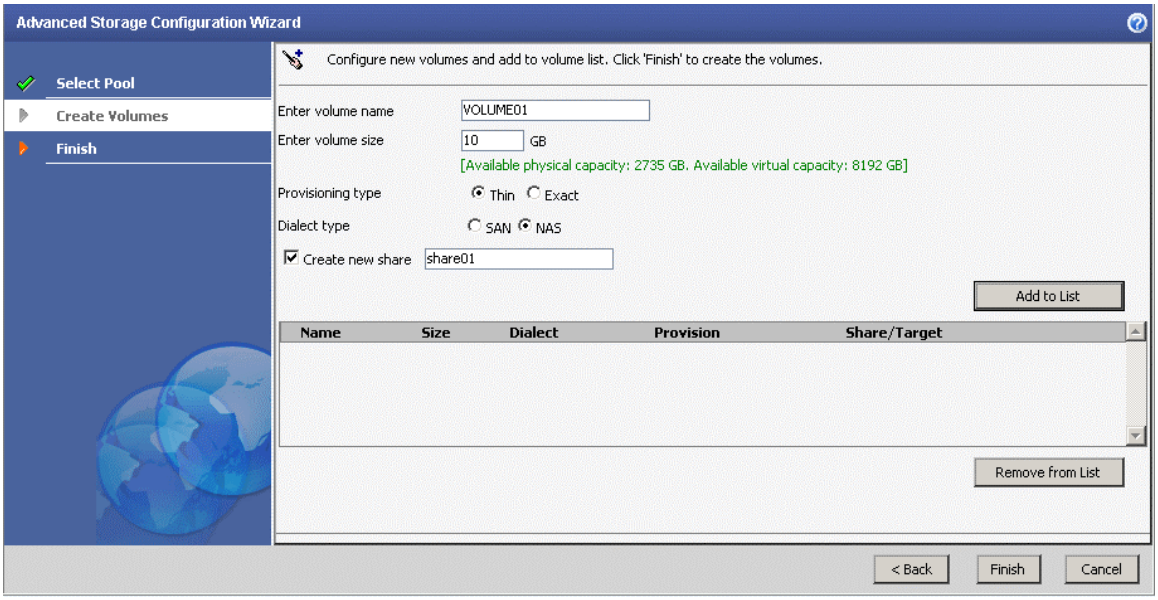
Click the *Add* button to continue.

Step Five: Configure NAS Volume

STOP!

This provides instruction on the configuration a NAS Volume and a NAS Share on to the Storage Appliance. If this storage appliance will be configured as a SAN Only unit, SKIP THIS STEP by clicking the *Finish* button and go to *Step Six: Summary View and Status*.

The next page allows the creation of the NAS Volume and Share.



Enter Volume Name

In the *Enter Volume Name* field, enter a name for the *NAS Volume*. The *NAS Volume Name* must be alphanumeric, not have any spaces and be between one and 63 characters in length.

Enter Volume Size

In the *Enter Volume Size* field, enter the size desired for the *NAS Volume*. The field is measured in Gigabytes (*GB)*.

Select Thin or Exact Provisioning

Select the type of provisioning desired.

If *Thin Provisioning* is selected, the volume can be assigned a size greater than the actual physical size of the storage device. For example, if the storage device has an actual physical size of 500 GB, the user can assign a size of up to 256 TB per box. Based on the consumption of the storage device's physical capacity, more physical drive capacity can be added later as desired.

If *Exact Provisioning* is selected, the volume size cannot exceed the actual physical space available in the storage device.

Note: *It is recommended to leave 20% of the physical space free for snapshots.*

Select NAS as the Dialect Type

Select *NAS* as the *Dialect Type.*

Create Share and Share Name

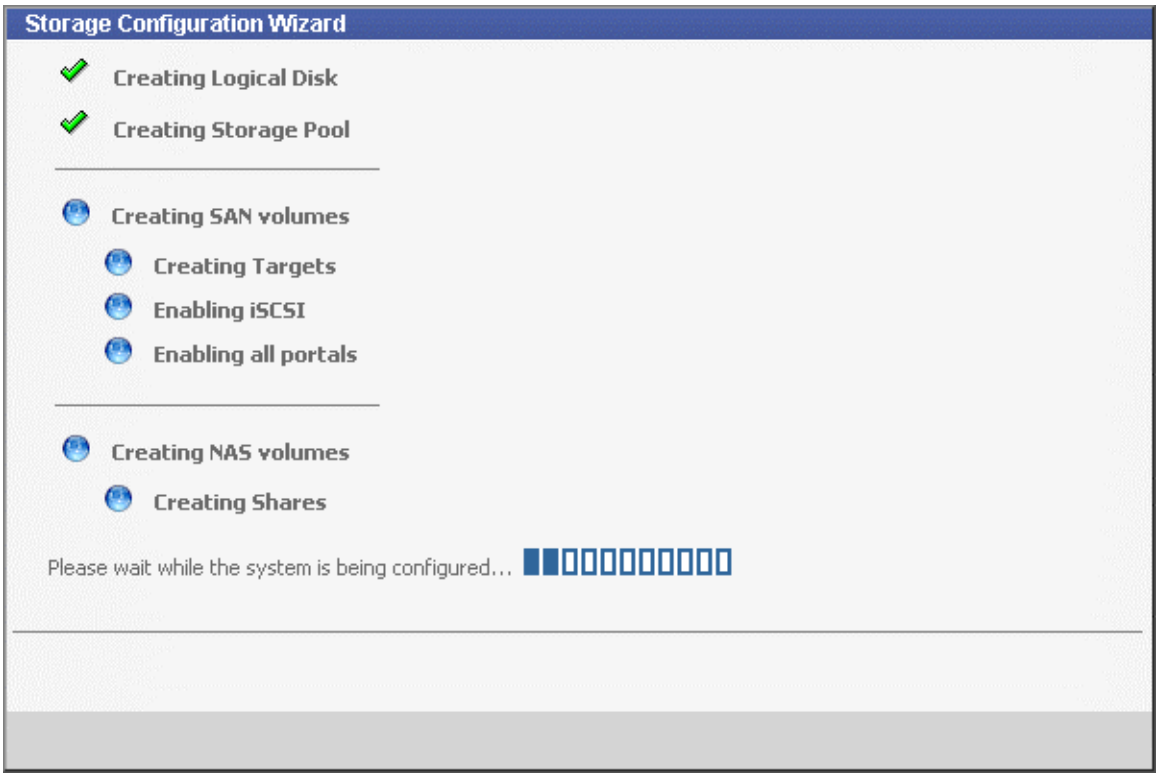
Place a check next to *Create New Share* if a *NAS Share* is needed at this time, otherwise click the *Add* button and continue on to the next step. To create a *NAS Share*, in the *Share Name* field, enter a unique name for the *NAS Share*. The *NAS Share Name* must be alphanumeric and be between one and 63 characters in length. To use spaces in the NAS Share Name, be sure to use quotation marks around the entire name that is typed in.

Click the *Add* button to continue.

Step Six: Summary View and Status

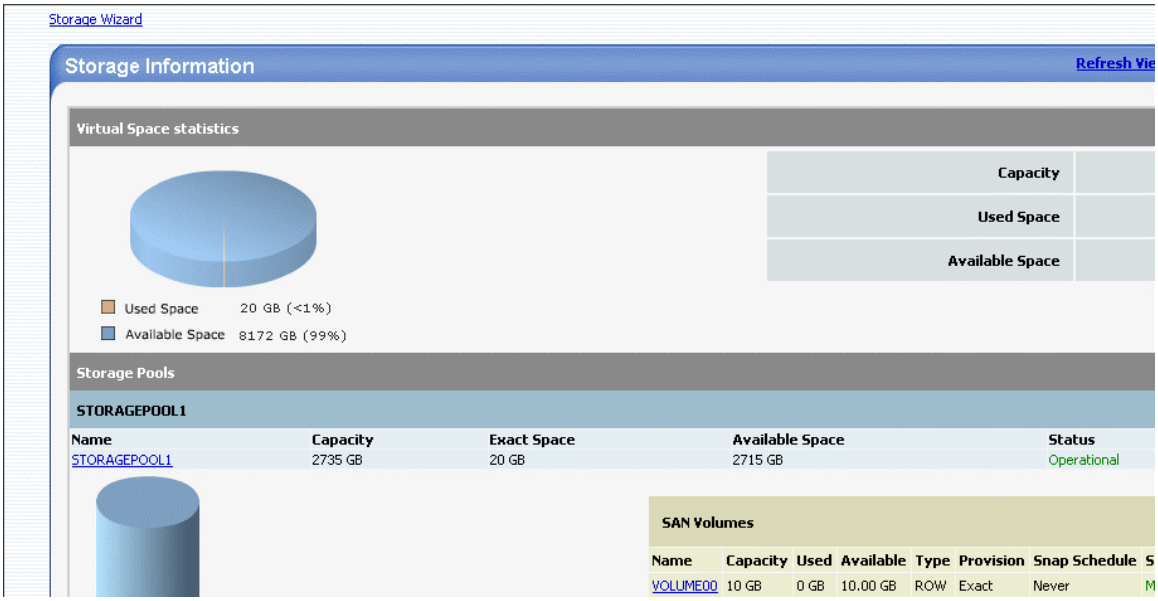
When all *Volumes* have been added, click the *Finish* button.

A summary will appear. The Storage Appliance will be automatically configured based on the values that were entered.



Do not close the window or click anywhere else until the operation completes.

Step Seven: All Done No Errors



STOP!

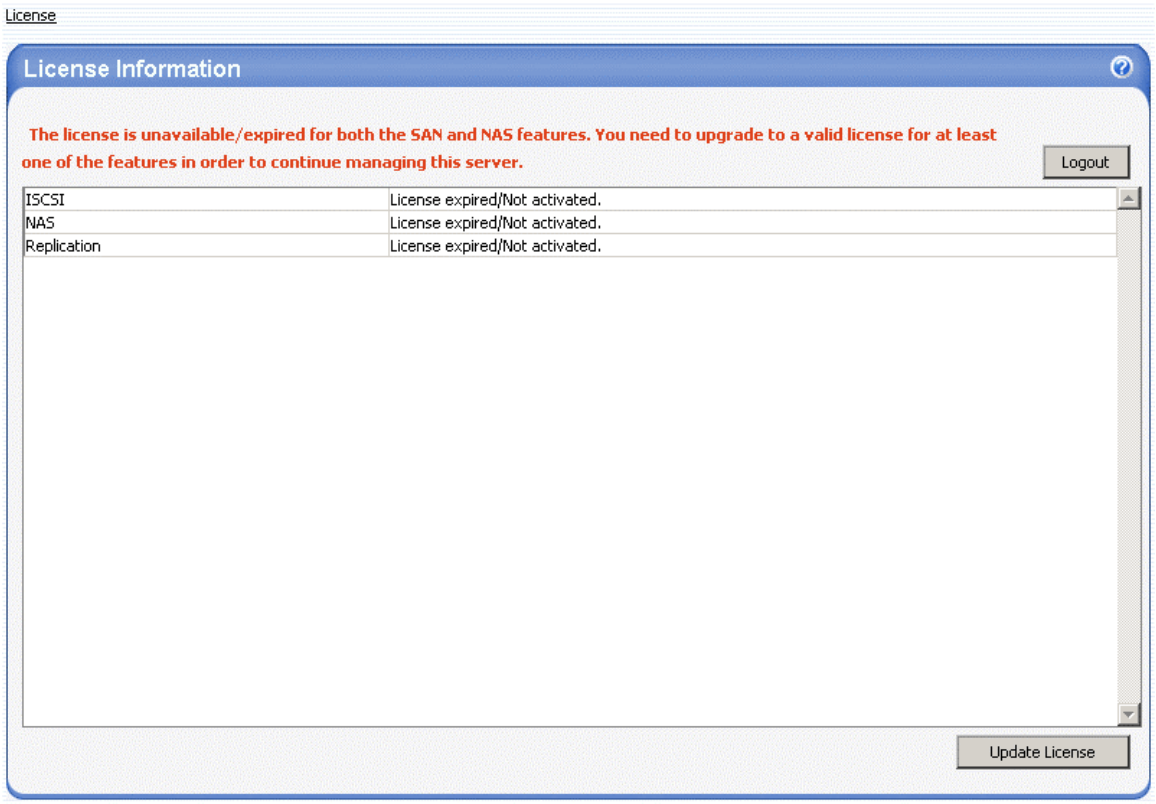
THE STORAGE APPLIANCE SHOULD NOW BE UP AND RUNNING.

Appendix A : Storage Appliance Configuration

For instructions on the configuration and storage provisioning of the Intel® Storage Server SSR212MC2, please see the user manual titled “StorTrends/ManageTrends® (Version 2.7) Web Interface User’s Guide”.

This document may be downloaded from the AMI StorTrends web site at http://www.ami.com/support/doc/MAN-MT-27.pdf and will provide specific walk-through instructions on configuration of the Intel® Storage Server SSR212MC2.

Appendix B: Updating an Evaluation License


License
License Information
The license is unavailable/expired for both the SAN and NAS features. You need to upgrade to a valid license for at least one of the features in order to continue managing this server.
Logout
ISCSI
License expired/Not activated.
NAS
License expired/Not activated.
Replication
License expired/Not activated.
Update License

Note: *All screen captures are for representative purposes only. The actual screen may look different. A newer version and build of the StorTrends® iTX Software may be in use*

In the event that the 45-day evaluation expires before entering the License key, a message stating the following will appear:

"*The license is unavailable/expired for both the SAN and NAS features. You need to upgrade to a valid license for at least one of the features in order to continue managing this server.*"

This page displays when logging into the Intel® Storage Server to manage it.

Overview

StorTrends® iTX software comes with a License Key that is valid for a trial period of 45 days and nearly all of the features will be enabled. At the conclusion of the 45-day trial period, upgrading to an unlimited or customized license by entering the appropriate license key that is obtained from an AMI Support Representative is possible.

The license can be updated via the *Update License* button. The Update License screen provides a StorTrends® iTX Service Key that will be required any time any changes or upgrades to the licensing of product is attempted.

Note: *The Service Key is required in order for the License Key to be generated. Each iTX Service Key is generated from hardware that is specific to a single iTX unit; thus it cannot be used to license or upgrade any other iTX devices. Please note that you can email yourself a copy of the Service Key simply by clicking on the Email Service Key button. This email can later be forwarded to an AMI Support Representatives when you're ready to make changes.*

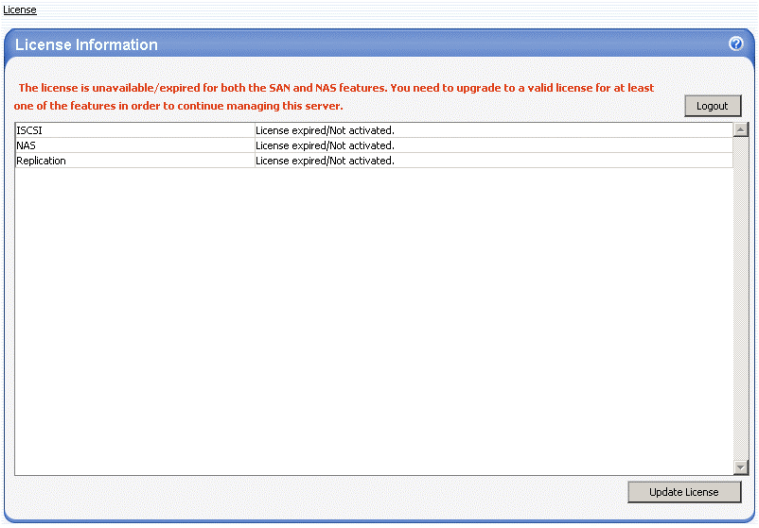
After an AMI Support Representative has processed these changes, you'll receive a new license key in the form of a text document. After you save the new key to a location on the hard drive, use the Browse button to navigate to the location of that file, and then simply select the Update License button to complete the process.

Updating an Expired License

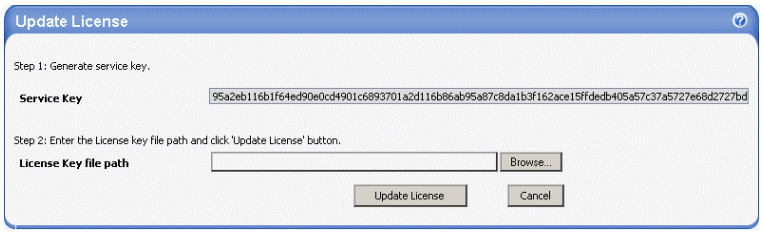
1) Log into the StorTrends iTX Storage Appliance.

The first thing visible will be the License Information screen stating the following:

"The license is unavailable/expired for both the SAN and NAS features. You need to upgrade to a valid license for at least one of the features in order to continue managing this server."


License
License Information
The license is unavailable/expired for both the SAN and NAS features. You need to upgrade to a valid license for at least one of the features in order to continue managing this server.
Logout
ISCSI
License expired/Not activated.
NAS
License expired/Not activated.
Replication
License expired/Not activated.
Update License

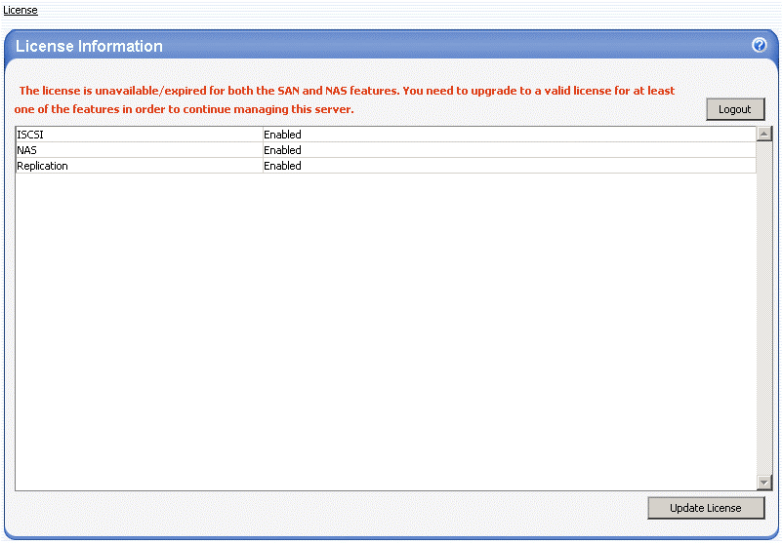
2) Left-click the Update License button.



3) The Update License page will open containing the Service Key and a License Key File Path field in order to enter path of the License key. If the License key was obtained previously, type the path or browse to the License key file. If the License key has not yet been obtained, contact an AMI Support Representative to obtain one.

4) After an AMI Support Representative has processed the license, a License key will be forwarded in the form of a text document. After saving the new key to a location on the hard drive, use the Browse button to navigate to the location of that file, and then simply select the Update License button to complete the process.

The options that were licensed will be marked “Enabled”.


License
License Information
The license is unavailable/expired for both the SAN and NAS features. You need to upgrade to a valid license for at least one of the features in order to continue managing this server.
Logout
ISCSI Enabled
NAS Enabled
Replication Enabled
Update License

Additional Documentation

- StorTrends/ManageTrends® (Version 2.7) Web Interface User's Guide (Downloadable from the AMI StorTrends web site at: http://www.ami.com/support/doc/MAN-MT-27.pdf)
- StorTrends iTX Installation Kit Guidebook (included in the StorTrends iTX Installation Kit CD; conversely contact an AMI Storage Sales Representative at 1-800-U-BUY-AMI or hwsales@ami.com to request a copy)
- StorTrends iTX 2.7 Data Sheet (Downloadable from the AMI StorTrends web site: www.stortrends.com)
- StorTrends iTX Whitepapers (Downloadable from the AMI StorTrends web site: www.stortrends.com)